Index for Volume 69 of Plant Disease

AUTHOR AND SUBJECT INDEX. Page numbers of illustrations are in parentheses.

Abawi, G. S., 81, 158
Abd-Elrazik, A. A., 703
Abdul-Magid, A. G. M., 1007
Acer platanoides, Cytospora canker, in Michigan, 360
Acremonium spp., on fescue and ryegrass, significance, 179
—*A. coenophialum* (see also *Epichloë typhina*), on fescue, in Tennessee, 467
Actinomycetes, biocontrol agent, 1033
Adaskaveg, J. E., 993
Aegilops spp., resistant to mildew, rust, Hessian fly, and greenbug, 314
Affeltranger, C. E., 268
Agrios, G. N., 52, 279
Agrobacterium radiobacter, crown gall biocontrol, 302
Agrostis palustris
—crown rot and leaf blight of, characterization and host range, 331, (332)
—*Pythium*-induced root dysfunction, 336, (337, 338)
Ahmad, I. B., 891
Ahmed, A. H., 173
Albugo bliti, on *Amaranthus hybridus*, epidemic in Florida, 542
Alcaligenes sp., biocontrol agent, carnation wilt, 1071
Alcorn, S. M., 177, 811
Alfalfa
—anthracnose of, symptomatology and ecology in Oklahoma, 248
—decline of, Phytophthora root rot of, seedling assay, 221
—Phytophthora root rot, in Quebec, 905
—Verticillium wilt: in Minnesota, 268; symptomless carrier, 510
—witches' broom disease of, in Saudi Arabia, 83
Alfalfa mosaic virus, on *Buddleia davidii*, strain comparisons, 266, (266)
Alfaro, A., 1007
Alfieri, S. A., Jr., 268
Allen, S. J., 248
Allison, J. R., 773
Almond
—canker of, *Phytophthora syringae* cause, 568, (569, 570)
—rust, races of, 485
Al-Musa, A. M., 361
Alternaria spp.: on greenhouse vegetables, control with film, 530; on safflower, hot-water seed treatment, 350
—*A. cucumerina*, on muskmelon, resistance technique, 426, (427)
—*A. helianthi*, on sunflower: host reaction, 986; seed treatment for, 124
—*A. macrospora*, on anoda, *Fusarium lateritium* interaction, 977
—*A. solani*, on potato, fungicide application by irrigation system, 152
Alvarez, A. M., 1082
Amador, J. M., 268
Amaranthus hybridus, white rust on, epidemic in Florida, 542
American Phytopathological Society, preliminary program, 1985 annual meeting, 616-636
Amico, L. A., 542
Amin, P. W., 718
Ammati, M., 112
Anderson, M. G., 177
Anderson, R. L., 196
Anliker, W. L., 140
Annellophora phoenicis, on date palm, in Texas, 903, (903, 904)
Anoda cristata, *Alternaria* and *Fusarium* on, interaction, 977
Anthurium andraeanum, Xanthomonas blight of, in California, 727
Aphanomyces euteiches, on peas: in Idaho, 451; in Ontario, 268
Aphis spp., on sweet corn, maize dwarf mosaic virus, 1100
—*A. gossypii*, potato virus Y vector, 396
Apple
—anthracnose of, fungal variation, 164
—calyx end rot of, in Washington, 726
—decay, calcium and controlled atmosphere effect, 747
—decline, wood decay fungi association, 887, (889)
—European canker, in Ontario, 1007
—fruit: decay of, calcium and maturity factors, 42; storage rot of, imazalil for *Penicillium* control, 416, (417, 418)
—Fusarium root rot, Idaho, 1101
—powdery mildew of, ergosterol inhibitor, 562
—return bloom of, fungicide inhibition of sterol synthesis, 776
—summer diseases of, sterol-inhibiting fungicides for, 700
Apple chlorotic leafspot virus, on apple, ribavirin for, 134
Aragaki, M., 511
Arceuthobium spp.
—on lodgepole pine, in Intermountain Region, 429
—on pine, roadside survey, 572
Armillariella tabescens, on sand pine, in Florida, 196
Arneson, P. A., 966
Arya, A., 726
Ascochyta rabiei, on chickpea: in Idaho, 268; races and variability, 177
Ash
—decline of, in New York State, intensification, 243
—Moraine, tobacco viruses on, transmission, 542
—white, decline, virus associated with, 791
Asparagus
—*Fusarium* spp. of, pathogenicity in transplants, 413
—Phytophthora root rot, metalaxyl for, 921
Asparagus virus I, in Washington, properties, 1044, (1045)
Asparagus virus II, occurrence in Michigan, 501, (503)
Aspen
—canker mortality, 842, (842, 843)
—*Dothiora polyspora*, in Rocky Mountains, 1100
Auld, D. L., 1089
Autonell, C. R., 64
Avena fatua, Septoria tritici blotch on, in Chile, 126, (127)
Avocado, lethal stem pitting of, first report in South Africa, 727
Aycock, R., 823
Azalea, Phytophthora root rot of
—fungicides, landscape beds, 697
—nursery stock, 1049

Bachi, P. R., 798
Bacillus subtilis
—biocontrol agent: bean rust, 770; Fusarium wilt of carnation, 1071
—on soybean seeds, fungal interaction, 506
Backman, P. A., 641
Bacteria, xylem-limited, on citrus, 497
Baker, C. J., 770
Baker, F. A., 361
Baker, K. K., 85
Baker, R., 431
Bangar, S. G., 982
Banttari, E. E., 202
Barker, K. R., 97
Barley
—net blotch of, triadimenol seed treatment for, host difference, 77, (77)
—oat cyst nematode on, first report in Idaho, 360
Barley leaf stripe, seed treatment for, in California, 474
Barley yellow dwarf virus
—ELISA activity, stability, 854
—growth and yield effect, 487
Barmore, C. R., 228
Barnard, E. L., 196
Barnes, G. L., 248
Barnes, L. W., 613, 1100
Barnett, O. W., 18
Barnett, R. D., 74
Barrows-Broaddus, J. B., 270
Bartz, J. A., 69, 128
Baumer, J. S., 162
Bays, D. C., 1094
Bean pod mottle virus, on soybeans, in North Carolina, 101
Bean southern mosaic virus, yield components, Colombian isolate, 803
Bean yellow mosaic virus
—on dry beans, in North Dakota, 542
—on red clover, resistance, 694
Bearden, B. E., 340
Beet western yellows virus, on vegetable crops and weeds, in Illinois, 933
Begonia, tomato spotted wilt virus on, in Texas, 613
Ben-Arie, R., 416
Bender, G. S., 1055
Benner, C. P., 999
Benson, B. L., 921
Benson, D. M., 97, 697, 1049
Bergdahl, D. R., 83, 887
Bergstrom, G. C., 724
Bermudagrass, spring dead spot disease of, in California, 235, (236)
Bernard, E. C., 103
Bertrand, P. F., 874
Beute, M. K., 36, 1059
Biggs, A. R., 1007
Biological control
—*Agrobacterium* for tomato crown gall, 302
—*Bacillus subtilis* for bean rust, 770
—Fusarium wilt: carnation, 1071; chrysanthemum, 167
—*Laetisaria arvalis* to *Rhizoctonia solani*, 347
—nutsedge with rust, 924
—Phytophthora root rot of soybean, 1033
—postharvest plant disease, potential, 375, (375, 378)
—*Pseudomonas* suppressive to wheat take-all, 710
—Rhizoctonia preemergence damping-off, chemical control integration, 431
Biotechnology, editorial, 1023
Birchfield, W., 587
Birdsfoot trefoil, rust, first report in USA, 727
Bisht, V. S., 436
Black, M. C., 36

Index for Volume 69 of Plant Disease

AUTHOR AND SUBJECT INDEX. Page numbers of illustrations are in parentheses.

Abawi, G. S., 81, 158
Abd-Elrazik, A. A., 703
Abdul-Magid, A. G. M., 1007
Acer platanoides, Cytospora canker, in Michigan, 360
Acremonium spp., on fescue and ryegrass, significance, 179
—*A. coenophialum* (see also *Epichloë typhina*), on fescue, in Tennessee, 467
Actinomycetes, biocontrol agent, 1033
Adaskaveg, J. E., 993
Aegilops spp., resistant to mildew, rust, Hessian fly, and greenbug, 314
Affeltranger, C. E., 268
Agrios, G. N., 52, 279
Agrobacterium radiobacter, crown gall biocontrol, 302
Agrostis palustris
—crown rot and leaf blight of, characterization and host range, 331, (332)
—*Pythium*-induced root dysfunction, 336, (337, 338)
Ahmad, I. B., 891
Ahmed, A. H., 173
Albugo bliti, on *Amaranthus hybridus*, epidemic in Florida, 542
Alcaligenes sp., biocontrol agent, carnation wilt, 1071
Alcorn, S. M., 177, 811
Alfalfa
—anthracnose of, symptomatology and ecology in Oklahoma, 248
—decline of, Phytophthora root rot of, seedling assay, 221
—Phytophthora root rot, in Quebec, 905
—Verticillium wilt: in Minnesota, 268; symptomless carrier, 510
—witches' broom disease of, in Saudi Arabia, 83
Alfalfa mosaic virus, on *Buddleia davidii*, strain comparisons, 266, (266)
Alfaro, A., 1007
Alfieri, S. A., Jr., 268
Allen, S. J., 248
Allison, J. R., 773
Almond
—canker of, *Phytophthora syringae* cause, 568, (569, 570)
—rust, races of, 485
Al-Musa, A. M., 361
Alternaria spp.: on greenhouse vegetables, control with film, 530; on safflower, hot-water seed treatment, 350
—*A. cucumerina*, on muskmelon, resistance technique, 426, (427)
—*A. helianthi*, on sunflower: host reaction, 986; seed treatment for, 124
—*A. macrospora*, on anoda, *Fusarium lateritium* interaction, 977
—*A. solani*, on potato, fungicide application by irrigation system, 152
Alvarez, A. M., 1082
Amador, J. M., 268
Amaranthus hybridus, white rust on, epidemic in Florida, 542
American Phytopathological Society, preliminary program, 1985 annual meeting, 616-636
Amico, L. A., 542
Amin, P. W., 718
Ammati, M., 112
Anderson, M. G., 177
Anderson, R. L., 196
Anliker, W. L., 140
Annellophora phoenicis, on date palm, in Texas, 903, (903, 904)
Anoda cristata, *Alternaria* and *Fusarium* on, interaction, 977
Anthurium andraeanum, Xanthomonas blight of, in California, 727
Aphanomyces euteiches, on peas: in Idaho, 451; in Ontario, 268
Aphis spp., on sweet corn, maize dwarf mosaic virus, 1100
—*A. gossypii*, potato virus Y vector, 396
Apple
—anthracnose of, fungal variation, 164
—calyx end rot of, in Washington, 726
—decay, calcium and controlled atmosphere effect, 747
—decline, wood decay fungi association, 887, (889)
—European canker, in Ontario, 1007
—fruit: decay of, calcium and maturity factors, 42; storage rot of, imazalil for *Penicillium* control, 416, (417, 418)
—Fusarium root rot, Idaho, 1101
—powdery mildew of, ergosterol inhibitor, 562
—return bloom of, fungicide inhibition of sterol synthesis, 776
—summer diseases of, sterol-inhibiting fungicides for, 700
Apple chlorotic leafspot virus, on apple, ribavirin for, 134
Aragaki, M., 511
Arceuthobium spp.
—on lodgepole pine, in Intermountain Region, 429
—on pine, roadside survey, 572
Armillariella tabescens, on sand pine, in Florida, 196
Arneson, P. A., 966
Arya, A., 726
Ascochyta rabiei, on chickpea: in Idaho, 268; races and variability, 177
Ash
—decline of, in New York State, intensification, 243
—Moraine, tobacco viruses on, transmission, 542
—white, decline, virus associated with, 791
Asparagus
—*Fusarium* spp. of, pathogenicity in transplants, 413
—Phytophthora root rot, metalaxyl for, 921
Asparagus virus I, in Washington, properties, 1044, (1045)
Asparagus virus II, occurrence in Michigan, 501, (503)
Aspen
—canker mortality, 842, (842, 843)
—*Dothiora polyspora*, in Rocky Mountains, 1100
Auld, D. L., 1089
Autonell, C. R., 64
Avena fatua, Septoria tritici blotch on, in Chile, 126, (127)
Avocado, lethal stem pitting of, first report in South Africa, 727
Aycock, R., 823
Azalea, Phytophthora root rot of
—fungicides, landscape beds, 697
—nursery stock, 1049

Bachi, P. R., 798
Bacillus subtilis
—biocontrol agent: bean rust, 770; Fusarium wilt of carnation, 1071
—on soybean seeds, fungal interaction, 506
Backman, P. A., 641
Bacteria, xylem-limited, on citrus, 497
Baker, C. J., 770
Baker, F. A., 361
Baker, K. K., 85
Baker, R., 431
Bangar, S. G., 982
Banttari, E. E., 202
Barker, K. R., 97
Barley
—net blotch of, triadimenol seed treatment for, host difference, 77, (77)
—oat cyst nematode on, first report in Idaho, 360
Barley leaf stripe, seed treatment for, in California, 474
Barley yellow dwarf virus
—ELISA activity, stability, 854
—growth and yield effect, 487
Barmore, C. R., 228
Barnard, E. L., 196
Barnes, G. L., 248
Barnes, L. W., 613, 1100
Barnett, O. W., 18
Barnett, R. D., 74
Barrows-Broaddus, J. B., 270
Bartz, J. A., 69, 128
Baumer, J. S., 162
Bays, D. C., 1094
Bean pod mottle virus, on soybeans, in North Carolina, 101
Bean southern mosaic virus, yield components, Colombian isolate, 803
Bean yellow mosaic virus
—on dry beans, in North Dakota, 542
—on red clover, resistance, 694
Bearden, B. E., 340
Beet western yellows virus, on vegetable crops and weeds, in Illinois, 933
Begonia, tomato spotted wilt virus on, in Texas, 613
Ben-Arie, R., 416
Bender, G. S., 1055
Benner, C. P., 999
Benson, B. L., 921
Benson, D. M., 97, 697, 1049
Bergdahl, D. R., 83, 887
Bergstrom, G. C., 724
Bermudagrass, spring dead spot disease of, in California, 235, (236)
Bernard, E. C., 103
Bertrand, P. F., 874
Beute, M. K., 36, 1059
Biggs, A. R., 1007
Biological control
—*Agrobacterium* for tomato crown gall, 302
—*Bacillus subtilis* for bean rust, 770
—Fusarium wilt: carnation, 1071; chrysanthemum, 167
—*Laetisaria arvalis* to *Rhizoctonia solani*, 347
—nutsedge with rust, 924
—Phytophthora root rot of soybean, 1033
—postharvest plant disease, potential, 375, (375, 378)
—*Pseudomonas* suppressive to wheat take-all, 710
—Rhizoctonia preemergence damping-off, chemical control integration, 431
Biotechnology, editorial, 1023
Birchfield, W., 587
Birdsfoot trefoil, rust, first report in USA, 727
Bisht, V. S., 436
Black, M. C., 36

Black walnut (see also *Juglans*)
—molding-root rot complex of seedlings, control, 398
—Mycosphaerella leaf spot, 1092 (1092, 1093)
Blakeslee, G. M., 196
Blanchette, R. A., 208, 838
Blueberry, mycoplasmalike organism in, detection, 193
Bockholt, A. J., 56
Bockus, W. W., 576
Boiteux, L. S., 1069
Bolkan, H. A., 485, 599, 708
Bonn, W. G., 58
Boone, D. M., 225
Boosalis, M. G., 347
Bosland, P., 612
Bostock, R. M., 568
Botryodiplodia jaczevskii, on rose, in India, 726
Botryosphaeria spp.
—*B. dothidea*: on apple, fungicides, 700; on pear, new host, 726
—*B. ribis*, on macadamia, in South Africa, 83
Botrytis spp.
—*B. cinerea*: conidial survival, factors, 391; on pear, decay resistance, 388; on pear, fruit decay, treatments, 574; on pear, in storage, floral infection, 341, 340, (341); on rose, postharvest control with CO_2, 789
—*B. squamosa*, on greenhouse vegetables, film for control, 530
Bowden, R. L., 268, 451, 811, 1089
Bowers, G. R., Jr., 361
Bradfute, O. E., 1078
Brakke, M. K., 857
Brinsmead, R. B., 504
Brits, G. J., 211
Brlansky, R. H., 1055
Broad bean wilt virus, on *Thunbergia alata*, foliar disease, 726
Broccoli, head rot of, in Australia, 177
Browder, L. E., 314
Brown, G. E., 228
Brown, W. M., Jr., 1065
Bruehl, G. W., 360, 862
Bruton, B. D., 289
Buchanan, J. R., 340
Buddleia davidii, alfalfa mosaic virus on, strain comparison, 266, (266)
Burke, D. W., 324, 328
Bursaphelenchus xylophilus, on pines, resistance in five species, 440
Butler, A. K., 101

Cabauatan, P. Q., 538
Cabbage
—Fusarium wilt of, new race, type A resistance, 612
—Rhizoctonia foliar blight of, in New York, 158, (159)
Caddel, J. L., 248
Cade, S., 175
Callaway, M. B., 924
Calvert, O. H., 988
Campbell, C. L., 469, 1049, 1059
Canna, rust of, in Hawaii, 1101
Canteros de Echenique, B. I., 122
Capinera, J. L., 878
Cappelli, C., 350
Cappellini, R. A., 1016
Capsicum spp., tobacco mosaic virus on, defoliation strain, resistance, 899
—*C. annuum*: bacterial spot, copper and zinc effect, 993; bacterial spot of, hypersensitive resistance, 233, (233); cucumber mosaic virus of, yield effect, 52; virus incidence in Georgia, 999
Cardamon, rust of, first report in America, 1100
Carmody, B. E., 426
Carnation, Fusarium wilt, suppressive soils, 1071
Carroll, R. B., 361
Carroll, T. W., 487
Carrot
—bacterial blight, detection, 758
—broomrape of, in Spain, 727
—Rhizoctonia crown rot, 477
—southern blight, control, 477
—storage rot, in Canada, 177
Carson, M. L., 177, 986
Casper, D. H., 955
Cassava latent virus, virus-free shoots from infected cuttings, 231
Castaño, M., 803
Castello, J. D., 243, 542, 791
Castle, W. S., 741
Caswell, E. P., 1075
Cephalosporium gramineum
—lime and sulfur effect, 576
—on wheat, computer program for, 543
Ceponis, M. J., 1016
Ceratocystis spp.
—*C. fagacearum*, tolerance and survival in Texas, 443
—*C. ulmi*: on elm, in Louisiana, 268; on elm, resistance to, screening, 60, (61); on elm, strain in northeastern North America, 677; on Siberian elm, in Minnesota, 361
—*C. wageneri*, on ponderosa pine, soil moisture effect, 206
Cercospora spp.
—*C. arachidicola*, on peanut, resistance, 1059
—*C. sojina*, on soybean, seed quality and yield effect, 436
—*C. zeae-maydis*, on corn, first report in Delaware, 361
Cercosporidium personatum, on *Arachis* spp., leaf spot resistance, 951
Cervantes, L. A., 574
Ceuthospora lunata, on cranberry, wounding effect, in Wisconsin, 225
Chaetomium spp., on soybean roots, factors, 520
Chahal, S. S., 982
Chalfant, R. B., 382
Chalutz, E., 869
Chamaecyparis nootkatensis, decline and mortality of, in Alaska, 13, (14, 15)
Chase, A. R., 782
Cheeseman, G. N., 177
Chenopodium spp., squash mosaic virus on, seed transmission, 946
Cherry
—little cherry disease of, indicator cultivar, 11, (11)
—sweet, bacterial canker of, moisture effect, 409
Chestnut, blight, first report in Minnesota, 905
Chickpea (see also *Cicer arietinum*)
—Ascochyta blight of, in Idaho, 268
—root pathogens of, seedborne soil particles, 238, (238)
—*Thielaviopsis* on, 1089, (1090)
Chromolaena odorata, Septoria leaf spot, 1101
Chrysanthemum
—bacterial leaf spot of: factors, 782; plant nutrition effects, 1086
—Fusarium wilt of: biocontrol, 167; cuttings and resistance, 836; resistance and chemical control, 564
Chun, D., 154
Cicer arietinum (see also Chickpea)
—Ascochyta blight of, in Syria and Lebanon, 177
—Phytophthora root rot, resistance, 504
—wilt and root rot complex, fungicides and host resistance, 591
Cimanowski, J., 562
Citrus
—black spot pathogen, benomyl resistant strain, 1007
—blight, xylem-limited bacteria, 497
—canker of, new outbreak of, in Florida, 361
—decline, *Fusarium* comparison, 1055, (1057)
—*Diplodia natalensis* on, ethylene effect on susceptibility, 228
—fruit storage, waxing and rot development, 869
Citrus bacteriosis, in Mexico, 808, (809)
Civerolo, E. L., 361, 808
Claassen, M. M., 576
Cladosporium caryigenum, on pecan fruit and foliage, physiological effect, 800, (801)
Clark, R. L., 419
Claviceps fusiformis, on pearl millet, stable resistance, 982
Clement, D., 854
Clover
—red, bean yellow mosaic virus on, 694
—subterranean, taproot rot of, in Australia, 1002
Clover primary leaf necrosis virus, red clover necrotic mosaic virus strain, 959
Clover yellow vein virus, on winged bean, symptoms, 352, (353)
Coakley, S. M., 461
Cobb, F. W., Jr., 206
Cobb, G. S., 684
Cohen, J., 448
Colditz, P., 999
Cole, H., 939
Coleman, L. W., 336
Colletotrichum spp., on apple and strawberry, virulence variation, 164
—*C. elasticae*, on fig, in Florida, 268
—*C. gloeosporioides*: on apple, fungicides, 700; on soybean, new in Spain, 1007; on strawberry, fungicides for, 608
—*C. lagenarium*, on cucumber, fungicides for, pictorial assessment, 833, (834)
—*C. trifolii*, on alfalfa, symptomatology and ecology in Oklahoma, 248
Collins, D. C., 726
Collins, M. H., 18
Common names for plant diseases
—alfalfa, 649; apple, 650; apricot, 651; azalea, 651; barley, 652; bean, 653; beet, 653; caneberry, 654; carnation, 655; celery, 655; cherry, 656; chrysanthemum, 656; citrus, 657; corn, 658; cotton, 659; crucifers, 660; cucurbits, 660; grape, 661; lettuce, 662; oats, 662; onion, 663; peach, 664; pear, 664; potato, 665; red clover, 666; rhododendron, 667; rose, 667; sorghum, 668; soybean, 668; strawberry, 669; sweet potato, 670; tobacco, 671; tomato, 672; turfgrass, 672; wheat, 675
Composted hardwood bark media, damping-off pathogens in, control, 494
Computer, CEPHLOSS program for, small grains in Montana, 543
Conifer, mycorrhizae, isolation, 1080
Container media
—soil-less, damping-off control, 494
—spatial pattern root rot, 1049
Converse, R. H., 193
Conway, K. E., 393
Conway, W. S., 42, 747
Cook, A. A., 83
Cook, R. J., 95, 686, 710
Cooksey, D. A., 727
Coprinus sp., on cereals and grasses in Alaska, 722

Corbett, M. K., 352, 356
Coriolus versicolor, on apple, decline, 887
Corn
—aflatoxin B_1 production in hybrids of, irrigation and kernel injury effect, 262
—eyespot of, first report in South Dakota, 177
—*Fusarium moniliforme* on ears, in Missouri, 988
—gray leaf spot of, first report in Delaware, 361
—head smut of: chlorotic spot and seedling evaluation, 251, (252); seed and soil chemical treatment for, 301
—*Helminthosporium carbonum*, race 1, 1101
—maize rayado fino virus on, host reactions, 56
—root and stalk rot of, irrigation management, 239
—root disease and nematode effect, pest management system, 382
—southern rust of, dew period and temperature effect, 219
—soybean cropping system with, *Pratylenchus agilis* on, 927
—stalk rot: prevalence in Colorado, 1065; resistance, plant introduction collection, 419
—*Stenocarpella macrospora* on, in North Carolina, 613
—sweet, bacterial wilt and northern corn leaf blight, 845
Corn stunt spiroplasma, serological detection in *Dalbulus*, from Mexico, 108
Corsini, D. L., 980
Corynebacterium spp.
—*C. flaccumfaciens*, on soybean, spread, 1036
—*C. michiganense*, on potato seed pieces, copper for control, 422
—*C. nebraskense*, on sweet corn, resistance, 845
Cotton
—hybrids resistant to Fusarium wilt, 312
—Phymatotrichum root rot of, atypical symptoms, 534, (535, 536)
—*Pythium* seedling disease of, symptom variability, 298
—Verticillium wilt of: dense plant population effect, 283, (284, 286); integrated control, 1025, (1026, 1027)
Covey, R. P., 726
Covington S. A., 268
Cowling, E. B., 548
Cowpea
—Fusarium wilt of, temperature and plant age on races, 779
—*Rhizoctonia solani* on, anastomosis group virulence, 25
—viruses of, cultivar reactions to, 18, (19)
Cox, J. E., 409
Cranberry, black rot of, wounding effect, in Wisconsin, 225
Crawley, D. K., 977
Criconemella spp., on peach, short-life sites, 874
Crock, J. E., 1089
Cronartium quercuum
—on jack pine, inoculation methods, 208, (208, 209)
—on loblolly pine: resistance screening, 491; seed treatment for, 147
Crop loss
—computer program for, small grains in Montana, 543
—term defined, letter, 457
Crosier, D. C., 81
Crucifer, black rot, bacterial identification, 1082
Cryptococcus fagisuga, on beech, first report in Virginia and Ohio, 905
Csinos, A. S., 254, 445
Cubeta, M. A., 506
Cucumber, anthracnose, fungicide concentration assessment, 833, (834)
Cucumber mosaic virus
—identification and serotyping, 891
—on *Capsicum annuum*, field effect, 52
—hosts, two new, 542
—on spinach, characterization in Texas, 751
—on tomato, in Sudan, 1007
Cucumber vein yellowing virus, on cucumber, in Jordan, 361
Cunfer, B. M., 1094
Cylindocladium crotalariae, on peanut: soil components, 36; seed occurrence, 434
Cymbopogon citratus, rust on, in Hawaii, 1100
Cynodon spp., Rhizoctonia foliar blight, in Florida, first report, 811
Cyperus spp., biocontrol with rust, alternate hosts, 924
Cytospora sp., on Norway maple, in Michigan, 360

Dalbulus spp.: corn viruses in, serological detection, 108; corn virus vector, 1078
Dale, J. L., 811
da Luz, W. C., 724
Damicone, J. P., 413
Dankers, W., 170
D'Arcy, C. J., 246, 933, 1100
Davis, J. R., 980
Davis, R. L., 116
Davis, R. M., 974
Dean, J. L., 689
Decline, forest trees, symptoms and causes, 548
Delia spp., on onion, Fusarium basal rot relation, 878
Demski, J. W., 734, 999, 1094
Dendroctonus terebrans, on pines, blue stain fungus relation, 528, (529)
Deng, T. C., 28
Derie, M. L., 268
Desmodium ovalifolium, wart disease, in Colombia, 806, (807)
Dhanvantari, B. N., 177
Diabrotica sp., maize chlorotic mottle virus transmitted by, 864
Diaporthe phaseolorum, on soybean: emerging problem, 641, (643, 646); first found in Maryland, 811; isolate variation and cultivar reaction, 132; southeastern USA, 990; in Texas, 361
Dichotomophthora portulacae, on purslane, biological activity, 761
Dickey, R. S., 1086
Dickson, D. W., 67
Didymosporina aceris, on Norway maple, in Connecticut and Pennsylvania, 451
Dietrich, R. A., 208
Dilbeck, R., 1101
Dillard, H. R., 579
Diplodia spp.
—*D. maydis*, on corn, stalk resistance in plant introduction collection, 419
—*D. natalensis*, on oranges, ethylene effect on susceptibility, 228
—*D. pinea*, on ponderosa pine, in South Dakota, 136
Disease management, interior gardens, 906, (906, 907)
Ditylenchus destructor, in Portugal, first report, 451
Dobson, J. W., 999
Dodds, J. A., 785
Dorrance, A. E., 177
Dorset, R. D., 136
Doster, M. A., 568
Dothiora polyspora, on aspen, in Rocky Mountains, 1100
Double, M. L., 905
Douglas-fir
—needlecast, in Pennsylvania, 714
—Phoma blight of, in California nursery, 773, (774)
—*Phytophthora cryptogea* and *P. drechsleri* on, in British Columbia, 361
Dowler, C. C., 382
Dozier, W. A., Jr., 776
Drechslera spp.
—*D. catenaria*, on creeping bentgrass, characterization and host range, 331, (332)
—*D. graminea*, on barley, seed treatment, 474
—*D. poae*, conidia of, source and dispersal, 21
Dunleavy, J. M., 1036
Dunn, R. A., 526
Du Plessis, H. J., 302
Durbin, R. D., 589
Dwinell, L. D., 270, 440

Easton, G. D., 152, 422, 499
Editorial
—Agrios, G. N., APS press, 279
—Aycock, R., committees and administration, 823
—Cook, R. J., crop loss, 95
—Fenn, P., features, 732
—Ford, R. E., career development and split appointments, 639
—Lockwood, J. L., doctor of plant health degree, 547
—Nelson, M. R., departmental reviews, 456
—Niederhauser, J. S., civilization threat, 371
—Rossman, A. Y., voucher specimens, 187
—Simone, G. W., diagnosis, 4
—Stack, R. W., jobs, 915
—Weinhold, A. R., and Morris, T. J., biotechnology, 1023
Edwards, W. H., 40
Egli, D. B., 763, 962
Eglitis, A., 13
Electron microscopy
—asparagus virus 1, 1044, (1045)
—citrus decline, roots, 1055, (1057)
—clover yellow vein virus on winged bean, 352, (353)
—maize rayado fino virus, 1078, (1079)
—plant virology applications, 85, (85-89)
—*Sphaeropsis sapinea*, conidial morphology, 838, (840)
—tobacco mosaic virus on *Rhoeo discolor*, 356, (357)
—tobacco streak virus, 448, (449)
El-Gholl, N. E., 268, 905
Ellett, C. W., 451
Ellis, M. A., 514
El-Zik, K. M., 1025
Elm, Dutch elm disease: in Louisiana, 268; resistance, screening, 60, (61)
Elmer, W. H., 292
Emmett, R. W., 727
Encoelia pruinosa, on aspen, tree mortality, 842, (842, 843)
Endo, R. M., 235, 451, 516, 612, 882
Endocronartium harknessii, on Scots pine, 177
Endophytic fungi, on grasses, serological reactivities, 200
Endothia parasitica, on chestnut, first report in Minnesota, 905
English, J. T., 196
Entomosporium maculatum, on photinia, fungicides for, 684
Environment, quantification, 461
Epichloë typhina (see also *Acremonium coenophialum*), on grasses, serological

reactivity of, 200
Epidemiology:
—environment, measurement, 461
—Verticillium wilt, on cotton, 1025
Epperson, J. E., 382
Epsky, N. D., 878
Erratum, vol. 68, no. 11, 1984, 83
Erwinia sp., on papaya, epidemiology and control, 305, (307)
—*E. amylovora*, on raspberry, in Wisconsin, 360
—*E. carotovora*: on potato tubers, air-dried tuber effect, 128; on potato tubers, lenticel infiltration with pressure, 69; on zucchini, 613
—*E. chrysanthemi*, plant nutrition effect, 1086
—*E. stewartii*, on sweet corn, resistance, 845
Erysiphe spp.
—*E. cichoracearum*, on lettuce, in Ontario, 177
—*E. graminis*: *Aegilops* resistant to, 314; on wheat, virulence genes, 905
—*E. polygoni*, on sugar beet, sterol-inhibiting fungicides for control, 257
Euphorbia pulcherrima (see Poinsettia)
Eustoma grandiflorum, cucumber mosaic virus on, 542
Euxesta notata, on onion, Fusarium basal rot relation, 878
Evans, T. A., 501
Everts, K. L., 878
Exobasidium vaccinii, on *Vaccinium* spp., in Hawaii, 805, (805)
Exserohilum turcicum, on sweet corn, resistance, 845

Fagus grandifolia, beech bark disease, first report in Virginia and Ohio, 905
Falk, B. W., 1078
Falloon, P. G., 921
Fenn, P., 732
Fenwick, H. S., 451
Ferro, D. N., 52
Fescue, toxicity, in cattle, endophyte, 467
Fescue grass, tall, endophytic fungi of, serology, 200
Festuca arundinacea, *Acremonium coenophialum* on, in Tennessee, 467
Fig, Colletotrichum leaf spot, in Florida, 268
Filonow, A. B., 1033
Fir, red, Phoma blight of, in California nursery, 773, (774)
Fletcher, J., 246
Flores, V., 930
Floriculture, disease control in, indexing systems, 189
Focus, 5, 96, 188, 281, 373, 459, 614, 640, 733, 824, 916, 1024
Foley, D. C., 419
Forbes, G. A., 726
Ford, R. E., 639
Fortlage, R. J., 340
Fortnum, B. A., 262
Foudin, A. S., 988
Fouse, D. C., 789
Fowler, M. C., 44, 482
Fox, M., 352
Frederiksen, R. A., 726
French, D. W., 887, 905
Frey, K. J., 969
Frosheiser, F. I., 268
Fungicide and Nematicide Update
—cereal and forage crop disease control, fungicides, 911
—small grain seed treatments, 1009
Fungicides (general) (see also Fungicides, specific)
—antioxidants for grapevines, 406
—apple return bloom affected by, 776
—barley leaf stripe, 474
—black walnut seedlings in cold storage, wraps and dips, 398
—cereal and forage crop disease control, evaluation, 911
—chickpea wilt and root rot complex, host resistance relation for control, 591
—on corn, pest management system, 382
—cucumber anthracnose, pictorial assessment key, 833, (834)
—Entomosporium leaf spot on photinia, 684
—foliar, soybean seed field, point system, 962
—Fusarium wilt of chrysanthemum affected by, 564
—irrigation system application, for potato early blight, 152
—lettuce drop control, epidemiology, 766
—pecan leaves photosynthesis inhibited by, 997
—Phytophthora root rot of azalea, control, 697
—seed treatment: for seedborne *Alternaria* on sunflower, 124; Septoria nodorum blotch of wheat, 74
—for *Septoria* on wheat, 162
—sterol-inhibiting: for apple powdery mildew, 562; for apple summer diseases, 700; for sugar beet powdery mildew control, 257
—strawberry black rot, 608
—tolerance of *Sclerotinia minor*, 143
—trenches in soilless container media, 494
—turfgrass disease, resistance, mixtures and rates, 939
Fungicides (specific) (see also Fungicides, general)
—benomyl: *Guignardia* resistant strain, in South Africa, 1007; onion leaf scald suppressed by, 884; soybean seedborne fungi affected by, 763; walnut canker and root rot, 1042
—benomyl and triadimefon, for grape powdery mildew, 406
—benzimidazole, *Pseudocercosporella herpotrichoides* tolerance to, 360
—captafol, black walnut seedlings in storage, control, 398
—carboxin: corn head smut suppression, 301; for *Sclerotium* and *Rhizoctonia* on carrot, 477
—copper 8-quinolinolate, for potato seed piece decay control, 422
—dicloran, iprodione, and vinclozolin, in peanut soil, movement and disappearance, 292
—fosetyl Al: pineapple heart rot control, 320; walnut canker and root rot, 1042
—furmecyclox, for *Sclerotium* and *Rhizoctonia* on carrot, 477
—imazalil, for pome fruit storage rots, 416, (417, 418)
—metalaxyl: *Phytophthora parasitica* response, 559; Phytophthora root rot of asparagus, 921; pineapple heart rot control, 320; potato late blight, timing and root absorption, 499; sensitivity on wheat and *Pythium* infection, 686
—metalaxyl and fosetyl Al: *Phytophthora* on sweet orange, 741; for poinsettia blight, 511
—PCNB, for *Sclerotium* and *Rhizoctonia* on carrot, 477
—phosphorous acid, pineapple heart rot control, 320
—propiconazole, corn head smut suppression, 301
—triadimefon and triadimenol, pine seed treatment for rust, 147
—triadimenol: barley net blotch seed treatment, 77; corn head smut suppression, 301
Fusarium spp.: on asparagus, pathogenicity on transplants, 413; on black walnut seedlings, control, 398; on bluegrass, soil moisture effect, 294; on soybean roots, factors, 520
—*F. graminearum*, corn stalk rot, Colorado, 1065
—*F. lateritium*: on anoda, *Alternaria macrospora* interaction, 977; on *Torreya*, in Florida, 905
—*F. moniliforme*: on asparagus, soil amendment, in Taiwan, 917; on corn, ear colonization, 988; on corn, stalk rot, 1065; on loblolly and pond pine, pitch canker from, in North Carolina, 175; on southern pine, pitch canker caused by, 270, (270, 271, 274, 275)
—*F. nivale*, on winter cereals and lawn grasses in Alaska, 722, (722)
—*F. oxysporum*: on apple, root rot, 1101; on cabbage, new race, type A resistance, 612; on carnation, suppressive soils, 1071; on celery, race 2, resistance, 882; on chickpea, fungicides and host resistance, 591; on chrysanthemum, biocontrol, 167; on chrysanthemum, cultivar resistance and chemical control, 564; on chrysanthemum, cuttings and resistance, 836; on cotton, hybrid resistance, 312; on cowpea, races, temperature and plant age, 779; on *Hebe odora*, symptoms, 450, (450); on *Lithops* spp., first report, 811; on onion, maggot and wounding effect, 878; soil amendment for, in Taiwan, 917, (918); on tomato, in Texas, 1100; on watermelon, new race in USA, 1007
—*F. solani*: on bean, resistance and soil physical factors, 324; on bean, soil oxygen effect, 328; on chickpea, fungicides and host resistance, 591; on citrus roots, citrus blight comparison, 1055, (1057)
—*F. subglutinans*, corn stalk rot, Colorado, 1065

Gabrielson, R. L., 758
Gaeumannomyces graminis, on wheat, bacteria suppressive to, screening test, 710
Gálvez-Ramírez, C., 727
Garabedian, S., 138
Garbanzo (see Chickpea)
García-Jiménez, J., 1007
Garcia M., R., 972
Gardner, D. E., 805, 1100, 1101
Garibaldi, A., 608
Gärtel, W., 149
Garza L., J. G., 808
Genua, J. M., 1080
Gerik, T. J., 534
Gersper, P. L., 206
Gerten, D. M., 811
Gibbons, R. W., 813
Gilbertson, R. L., 1065
Gill, B. S., 314
Gillaspie, A. G., Jr., 310
Gillett, J. M., 85
Gilliam, C. H., 684
Gilreath, J. P., 542
Gitaitis, R. D., 32, 58
Glaze, N. C., 382
Gliocladium roseum, on soybean roots, factors, 520
Gloeodes pomigena, on apple, fungicides, 700
Glomerella cingulata: on apple, fungicides, 700; on strawberry and apple, virulence variation, 164
Golden, A. M., 360, 927
González, J. A., 409
Gooding, G. V., Jr., 396

Goodwin, P. H., 202
Gopinath, R., 582
Gordon, D. T., 108, 602
Gordon, N. H., 108
Gordon, T. R., 474
Goth, R. W., 851
Gotlieb, A. R., 360
Gottwald, T. R., 800, 997
Graham, J. H., 1055
Grape, powdery mildew of: fungicides as antioxidants for, 406; hyphae in buds, 149, (149, 150)
Grapevine: Pierce's disease, plant growth regulators, 944; *Uncinula necator* cleistothecia on, first report in Australia, 727
Grasmick, M. E., 49
Grau, C. R., 221
Grbavac, N., 77
Greber, R. S., 1046
Grech, N. M., 83, 726, 727, 1007
Green, A., 587
Green, C. E., 60
Green, L., 11
Green, R. J., Jr., 398
Green, S. K., 28
Greenhalgh, F. C., 1002
Grisham, M. P., 289, 426
Grogan, R. G., 400, 579, 766, 921
Groundnut (see also Peanut), bud necrosis disease of, resistance to, 718
Grove, G. G., 514
Guar, bacterial blight, in Arizona, 811
Guava, Septofusidium wilt, in South Africa, 726
Guayule, *Pythium aphanidermatum* on, first report, 177
Guignardia citricarpa, on citrus, benomyl resistant strain, 1007
Gullino, M. L., 608
Gulya, T. J., 542
Guries, R. P., 60
Gurkin, R. S., 477

Hafez, S. L., 360
Hagan, A. K., 21, 684, 726
Hagedorn, D. J., 119
Halik, S. S., 83
Hall, D. H., 474
Halliwell, R. S., 613, 751
Hamilton, K., 217, 404
Hamm, P. B., 361
Hanlin, R. T., 83
Hansen, A. J., 11, 134
Hansen, E. M., 361
Harbaugh, B. K., 782
Harris, K. F., 56
Hartman, G. L., 506
Hartmann, R. W., 233
Hartung, A. C., 501
Harvey, T. L., 314
Harville, B. G., 587
Hatchett, J. H., 314
Hattingh, M. J., 302
Haugen, L. G., 162
Havey, M. J., 221
Hawk, J. A., 361
Hawksworth, F. G., 572
Hayes, E., 905
Hayward, A C., 177
Heady, S. E., 108
Hebe odora, Fusarium wilt of, symptoms, 450, (450)
Heimann, M. F., 360
Helminthosporium spp.
—*H. carbonum*, race 1, on corn, 1101
—*H. papulosum*, on apple, fungicides, 700
Helton, A. W., 1101
Hendrix, J. W., 445
Hennon, P. E., 13
Henzell, R. G., 1046
Herbert, J. A., 83, 1007
Hernandez, L. A., 83
Herr, L. J., 124
Herrman, T., 948
Heterobasidion annosum, on sand pine, in Florida, 196
Heterodera spp.
—*H. avenae*, on barley, first report in Idaho, 360
—*H. glycines*, on snapbean, host suitability, 119
—*H. schachtii*, in California, distribution, 1075
Hibben, C. R., 542
Hibino, H., 538
Hibiscus, Phytophthora leaf blight, new disease, 1005, (1005)
Hiebsch, C. K., 334
Highley, L., 528
Hijano, E. H., 268
Hill, R. R., Jr., 510
Hills, F. J., 257
Hilty, J. W., 467
Hinds, T. E., 842, 1100
Hine, R. B., 993
Hirsch, D. C., 720
Hiruki, C., 610, 959
Hobbs, E. L., 429
Hoch, H. C., 726
Hodges, C. F., 336
Hoffman, J. T., 429
Holcomb, G. E., 360, 905, 1100
Hollier, C., 360
Hollier, C. A., 219, 937
Hollingsworth, M. H., 776
Holmes, F. W., 177
Homalodisca coagulata, citrus blight vector, 497
Honda, Y., 530, 596
Hook, J. E., 239
Hopkins, D. L., 944
Hops, downy mildew epidemics of, seasonal carryover, 140
Horseradish, turnip mosaic virus in, in germ plasm collection, 246
Horst, R. K., 1086
Horwitz, D. K., 246
House plants, disease management, 906, (906, 907)
Houser, W. J., 939
Houston, D. B., 905
Houston, D. R., 677, 905
Howard, C. M., 164
Howell, W. E., 1044
Huang, J.-W., 917
Humulus lupulus, potato rot nematode on, in Portugal, 451
Hunger, R. M., 848
Hypochytrium catenoides, biocontrol agent, Phytophthora root rot of soybean, 1033

Igwegbe, E. C. K., 899
Impatiens, damping-off, control in container media, 494
Inonotus circinatus, on sand pine, in Florida, 196
Insecticide, chlorpyrifos, *Sclerotium rolfsii* affected by, 254
Instructions to Authors, 3
Integrated pest management
—corn diseases and nematodes, multiple cropping and irrigation, 382
—cotton, Verticillium wilt, 1025
Ioannou, N., 400
Irpex tulipiferae, on apple, decline, 887
Irrigation, corn, pest management in, 382
Irwin, J. A. G., 504

Jackson, K. E., 727
Jackson, L. F., 474
Jackson, W. A, 838
Jacobsen, B. J., 119, 584
Jarvis, W. R., 177
Jaworski, C. A., 32
Jebbour, F., 946
Jeffrey, K. K., 124
Jenkins, S. F., 469, 477, 833
Jensen, S. G., 864
Jiménez-Díaz, R. M., 591
Johnson, A. W., 382
Johnson, D. A., 140
Johnson, D. W., 136, 572
Johnson, G. I., 434
Johnson, L. F., 298
Johnson, M. C., 179, 200
Johnston, R. H., 543
Jones, J. B., 32, 542, 782
Jones, R. K., 40
Jones, R. M., 905
Juglans spp. (see also Black walnut)
—*J. hindsii*, Phytophthora canker and rot, control, 1042
—*J. regia*, Phytophthora crown and root rot, 1039

Kabatiella zeae, on corn, first report in South Dakota, 177
Kabbabeh, S., 177
Kable, P. F., 485
Kaiser, W. J., 268
Kamicker, T. A., 744
Kauffmann, K. D., 1101
Keeling, B. L., 132
Kelley, W. D., 147
Kelling, B. L., 524
Kelman, A., 69, 128
Kenerley, C. M., 534
Kennedy, G. G., 396
Kephart, K. D., 268
Kerr, E. D., 347
Kessler, K. J., Jr., 1092
Keyserling, M. L., 103
Kielbaso, J. J., 360
Kim, B.-S., 233
Kimpinski, J., 105, 526
King, S. B., 219, 937
Kinloch, R. A., 334
Kinsey, J. G., 1101
Kishaba, A., 785
Kliejunas, J. T., 773
Klisiewicz, J. M., 761
Knowles, J. W., 776
Kommedahl, T., 251, 301
Kraft, J. M., 451
Krause, G. F., 988
Krausman, E. M., 235
Krupa, S. V., 689
Kuan, T.-L., 758
Kuhlman, E. G., 175, 270
Kuhn, C. W., 999
Kulik, M. M., 811
Kuszala, J., 266

Laccaria laccata, on conifers, isolation method, 1080
Lachnellula willkommii, on larch, in New Brunswick, 796, (796)
Laemmlen, F. F., 451
Laetisaria arvalis, *Rhizoctonia solani* depressed by, 347
Lahman, L. K., 680
Lal, B., 726
Lane, W. D., 134
Langdon, P. W., 504
Langenberg, W. G., 857
Larch
—European, canker, age distribution, New Brunswick, 796
—Western, needlecast, 542

Larix decidua, premature defoliation in Vermont, 83
Larsen, H. J., 347, 857
Larsen, P. O., 21, 331
Latch, G. C. M., 179
Latham, A. J., 776
Latorre, B. A., 213, 409, 930
Latterell, F. M., 361
Laurent, T. H., 13, 1100
Leach, L. D., 257
Leath, K. T., 510, 694
Leath, S., 905
Lee, R. F., 497, 1055
Lenné, J. M., 83, 355, 806
Lennon, A. M., 946
Lentils, black root rot, first report, 1089
Leonard, K. J., 613
Leptographium terebrantis, on pines, blue stain and beetle relation, 528, (529)
Leptosphaeria korrae
—on bermudagrass, in California, 235, (236)
—on bluegrass, pathogen, 482, (483)
le Roux, J., 1007
Lettuce
—disorders in shipments to New York, 1016
—powdery mildew of, in Ontario, 177
—*Sclerotinia* on, epidemiology and control, 766
—*Sclerotinia minor*, sclerotial population, green manure effect, 579
Lewis, R., Jr., 443
Lichens (see *Strigula* spp.)
Lifshitz, R., 431
Lifshitz, S., 431
Lightner, G. W., 1016
Lim, S. M., 744
Lipps, P. E., 124
Lister, R. M., 854
Lithops spp., Fusarium wilt of, first report, 811
Locke, J. C., 167
Lockhart, B. E. L., 946
Lockwood, J. L., 154, 547, 1033
Loeffler, T. M., 763
Lomaniec, E., 869
Long, D. L., 343, 955
Long, E. A., 467
Lorbeer, J. W., 703
Losses from disease, soybeans in southern USA, 92
Lou, K., 1082
Lovell, G. R., 734
Lucerne transient streak virus, occurrence in Canada, 610, (611)
Luke, H. H., 74

Maas, J. L., 164
Macadamia, branch dieback in South Africa, 83
MacDonald, W. L., 905
Machtmes, R., 360, 862
MacNeill, B. H., 58
Macrophomina phaseolina
—on chickpea, fungicides and host resistance, 591
—on sand pine, in Florida, 196
—in soil, ammonia effect on, 154
—on soybean roots, factors, 520
—on *Stylosanthes guianensis*, first report in Colombia, 83
Macrosteles fascifrons, oat blue dwarf virus vector, 706
Madariaga B., R., 126
Madden, L. V., 514
Magarey, P., 727
Main, C. E., 901
Maize chlorotic mottle virus, rootworm transmission, 864
Maize dwarf mosaic virus
—aphid vectors, nonrandom spatial distribution, 893
—on corn, in Ecuador, 1078
—on sorghum, feature, 1011, (1012, 1013)
—new strain, identification, 602, (604)
—sugarcane mosaic virus compared to, 1046
—on sweet corn, aphid vectors, 1100
Maize rayado fino virus
—on corn: host reactions, 56; occurrence in Ecuador, 1078 (1079)
—serological detection in *Dalbulus*, from Mexico, 108
Mancl, M. K., 542
Manfredi, E. E. A., 268
Manion, P. D., 243
Manning, W. J., 413
Mansour, A. N., 361
Manwiller, A., 262
Maple, Norway, leaf blight of, 451
Marais, L. J., 1055
Marani, A., 312
Margosan, D. A., 789
Marois, J. J., 167
Martin, J. M., 487
Martin, S. B., 158
Martinez, A. P., 1101
Martyn, R. D., 1007, 1100
Matheron, M. E., 1039, 1042
Mathre, D. E., 543
Mathur, S. B., 982
Matyac, C. A., 251, 301
Mayango, D., 884
Mayetiola destructor, *Aegilops* resistant to, 314
McBeath, J. H., 722
McCain, A. H., 773, 1071
McDaniel, L. L., 602
McDonald, D., 813, 951
McDowell, J., 714
McFatridge, J. A., 854
McGlohon, N. E., 811
McGovern, R. J., 1086
McNabb, H. S., Jr., 755
McVey, D. V., 217, 404
Meloidogyne spp.: on *Lycopersicon* spp., resistance screening, 112; on sunflower, reproduction, 103; on tobacco, in Florida, 972; on tobacco, management with nematicides, 67
—*M. chitwoodi*, second race in Washington, 361
—*M. hapla* and *M. incognita*, on strawberry, hosts and parasitism, 40, (40)
—*M. incognita*: on soybean, gall and yield responses, 334; on tomato, nematicides and drip irrigation, 138
Melon
—powdery mildew, in Brazil, 1069, (1069)
—zucchini yellow mosaic virus on, in California, 785, (787)
Melouk, H. A., 379
Melton, T. A., 119
Merrill, L. M., 572
Merrill, W., 714, 1080
Meteorology, data collection, problems, 461, (465)
Mew, T. W., 896
Michailides, T. J., 485
Microplots, in field, rotary digger for, 81, (82)
Mielke, M. E., 905
Mihail, J. D., 177, 811
Miller, D. E., 324, 328
Miller, J. D., 720
Miller, J. W., 361
Miller, M. E., 268, 426
Miller, R. W., 874
Mills, P. R., 173, 1007
Mink, G. I., 1044
Minor, H. C., 988
Minsavage, G. W., 758
Mircetich, S. M., 1039, 1042
Mislevy, P., 811
Mock, N., 770
Mock, R. G., 310
Mohn, C. A., 208
Moll, J. N., 727
Monilinia fructicola, on peach, in Georgia, first report, 811
Morales, F. J., 803
Morgan, F., 301
Morgan-Jones, G., 641, 726
Morris, T. J., 1023
Moseman, J. G., 314
Moss, J. P., 951
Motsinger, R. E., 874
Mucor piriformis:
—conidial survival, factors, 391
—on pear: decay resistance, 388; fruit decay, treatments, 574
Mueller, J. D., 520, 584
Mullen, J. M., 684, 726
Mullen, R. J., 921
Mulrooney, R. P., 92
Murphy, J. P., 905
Murray, T., 360
Muskmelon, Alternaria leaf blight of, resistance technique, 426, (427)
Musselman, R. C., 406
Myatt, A. K., 116
Mycocentrospora acerina, on carrot, in storage, 177
Mycoherbicide, biocontrol of weeds, 6, (7)
Mycoparasite, *Sclerotinia sclerotiorum* sclerotia, 584
Mycoplasmalike organisms, detection in blueberry, DAPI technique, 193, (194, 195)
Mycosphaerella spp.
—*M. juglandis*, on black walnut, resistance and control, 1092, (1092, 1093)
—*M. laricina*: on larch, in Vermont, 83; on Western larch seedlings, needlecast, 542
—*M. pomi*, on apple, fungicides, 700
Mycotoxins, aflatoxin B_1, on corn, irrigation and injury effect, 262, (264)
Myzus persicae, potato virus Y vector, 396

Nafade, S. D., 982
Nagle, M. E., 152, 422, 499
Nameth, S. T., 785
Nardacci, J. F., 700
Nault, L. R., 108
Nectria galligena, on apple, in Ontario, 1007
Nelson, M. R., 456
Nematicides
—aldicarb, effect on strawberry nematodes, 105
—fenamiphos and oxamyl, for citrus nematode, 974
—nematodes on tobacco managed by, 67
Nematodes
—corn, pest management system, 382
—on ornamentals, in nursery and landscape, 97, (98)
Nemoto, M., 530, 596
Netzer, D., 312
Nicholls, T. H., 542, 739
Niedbalski Cline, M., 584
Niederhauser, J. S., 371
Nikolich, G. A., 257
Noel, G. R., 119
Nolt, B. L., 542
Nordmeyer, D., 67
Nothoscordum bivalve, nothoscordum mosaic virus on, new host, 905
Nutrition, bacterial leaf spot in chrysanthemum, 1086
Nutter, F. W., Jr., 999
Nyczepir, A. P., 874

Oak, leaf blister of, first report in Georgia, 83
Oak, S. W., 196
Oat blue dwarf virus, host and insect vector,

706
Oats, rust of, host cytoplasm association in crosses, 969
Oberly, W., 884
O'Brien, J. G., 361
Occhiena, E. M., 1069
Odhiambo, B., 542
Odvody, G. N., 726
Ogawa, J. M., 485
Ogle, W. L., 18
Ogungbade, O. K., 899
Ohr, H. D., 235
Oidiopsis taurica, on onion, in California, 451
O'Knefski, R. C., 44
O'Leary, A. L., 700
Olson, C. J., 189
Omura, T., 538
Oncometopia nigricans, citrus blight vector, 497
Onion
—downy mildew epidemics: control in New York, 703; in Texas, 268
—Fusarium basal rot of, maggot and wounding effect, 878
—powdery mildew of, in California, 451
Onobrychis viciaefolia, *Sclerotium* and *Rhizoctonia* on, first report, 905
Ooka, J. J., 542
Opgenorth, D. C., 882
Orange, sweet, *Phytophthora parasitica* on, metalaxyl and fosetyl Al effectiveness, 741
Ornamental plants, disease control in, indexing systems, 189, (189-191)
Ornamentals, nematodes of, threat to, 97
Orobanche reticulata, on carrot, in Spain, 727
O'Shea, M. T., 542
Ostaff, D. P., 796
Ostry, M. E., 542, 755

Pacumbaba, R. P., 231
Palm, date, Annellophora leaf spot of, in Texas, 903, (903, 904)
Palmer, G. K., 298
Palmer, M. A., 542, 739, 838
Panattoni, L., 350
Papavizas, G. C., 167
Papaya, bacterial canker of, epidemiology in Caribbean Islands, 305, (307)
Parish, P. J., 939
Pataky, J. K., 845
Patterson, C. L., 766
Paulus, A. O., 785
Pavek, J. J., 980
Pawar, N. B., 982
Payne, G. A., 613
Payne, J. A., 997
Pea
—Aphanomyces root rot of: in Idaho, 451; in Ontario, 268
—Thielaviopsis root rot, 1089
Peach
—leaf and shoot blight, in Georgia, first report, 811
—ring nematode, short-life sites, 874
—rust, races of, 485
Peacock, H. A., 334
Peanut (see also Groundnut)
—black rot of, soil components, 36
—Cylindrocladium black rot of, seed occurrence, 434
—dicloran, iprodione, and vinclozolin relations, 292
—leaf spot, resistance, wild species, 951
—rust, threat in tropics, 813, (814, 815, 818)
—Sclerotinia blight, seed and debris for spread, 379
—web blotch, in Virginia, 1097, (1099)
Peanut mottle virus, in Thailand and Philippines, 1101
Peanut stripe virus
—seed distribution, 734, (734, 735)
—in Thailand and Philippines, 1101
Peanut stunt virus
—identification and serotyping, 891
—in Sudan, identification, 173, (173)
Pear
—*Botryosphaeria dothidea* on, new host, 726
—Botrytis blossom-end rot, in storage, floral infection, 340, (341)
—decay fungi, conidial survival, factors affecting, 391
—decay resistance, preharvest fruit maturity effect, 388
—fruit decay, heat treatment and sodium ortho phenylphenate, 574
Pearson, R. C., 149
Pecan
—photosynthesis inhibition by fungicides, 997
—scab of, physiological response, 800, (801)
Penicillium spp.: on pome fruit in storage, imazalil for, 416; on soybean roots, factors, 520
—*P. expansum*: conidial survival, factors, 391; on pear, decay resistance, 388; on pear, fruit decay, treatments, 574
Penney, B. G., 177
Pennisetum americanum
—downy mildew, detection, seedling inoculation technique, 582
—ergot of, stable resistance, 982
Pennypacker, B. W., 510
Peristrophe angustifolia, cucumber mosaic virus on, 542
Peronospora destructor, on onion: epidemic and control, New York, 703; epidemic in Texas, 268
Persley, D. M., 1046
Pest management, greenhouse vegetables, ultraviolet-absorbing film, 530
Peterson, G. W., 136
Peterson, J. L., 798
Pezicula malicorticis
—conidial survival, factors, 391
—on pear, decay resistance, 388
Pfahler, P. L., 74
Phaeolus schweinitzii, on sand pine, in Florida, 196
Phaseolus spp., *Rhizoctonia solani* virulence to, 25
—*P. vulgaris*: bacterial blight pathogens, seedborne assay, 680; bean southern mosaic virus on, yield components and Colombian isolate, 803; bean yellow mosaic virus on, first report in North Dakota, 542; Fusarium root rot of, soil oxygen effect, 328; Fusarium root rot of, soil physical factor effect, 324; rust of, biocontrol with *Bacillus*, 770; soybean cyst nematode on, host suitability, 119
Phatak, S. C., 32, 382, 924
Phellinus robineae, on black locust, in Oklahoma, 116
Phialophora spp.
—*P. graminicola*: on Kentucky bluegrass, induction technique, 482, (483); on turf, arsenate herbicide stress effect, 44
—*P. malorum*, conidial survival, factors, 391; on pear fruit, decay, 388, 574
Phillips, D. J., 789
Phipps, P. M., 143, 1009, 1097
Phoma spp.
—*P. arachidicola*, on peanut, in Virginia, 1097, (1099)
—*P. eupyrena*, on red fir and Douglas-fir, in California nursery, 773, (774)
Phomopsis spp., on soybean roots, factors, 520
—*P. sojae*, on soybean, seed quality and yield effect, 436
Photinia, Entomosporium leaf spot of, fungicides for, 684
Phymatotrichum omnivorum, on cotton, symptoms, atypical, 534
Physalospora obtusa, on apple, fungicides, 700
Phytophthora spp.
—*P. cactorum*, on strawberry fruit, overwinter survival, 514, (515); on walnut roots, resistance, 1039
—*P. capsici*, on tomato, resistance evaluation, 708
—*P. cinnamomi*: on azalea, container-grown nursery stock, 1049; on azalea, fungicides, landscape beds, 697; native vegetation, in South Africa, 715; on protea, in South Africa, 211; on sand pine, in Florida, 196; on walnut, control, 1042; on walnut roots, 1039
—*P. citricola*, on black walnut seedlings, control, 398; on walnut, fungicides for, 1042
—*P. citrophthora*, on walnut, 1039
—*P. clandestina*, on clover, in Australia, 1002
—*P. cryptogea* and *P. drechsleri*, on Douglas-fir in British Columbia, 361; on walnut, 1039
—*P. drechsleri*, poinsettia blight, control, 511, (512)
—*P. infestans*: on potato, fall-grown, Florida, 1101; on potato, metalaxyl for, efficiency, 499; on tomato, hosts, types, and races, 516
—*P. megasperma*: on alfalfa, decline and seedling assay, 221; on alfalfa, in Quebec, 905; on asparagus, metalaxyl for, 921; on chickpea, resistance, 504; on soybean, biocontrol, 1033; on soybean, problems and progress, 362, (363, 366, 367); on soybean, races, temperature effect, 524; on walnut, 1039
—*P. nicotianae*, poinsettia blight, control, 511, (512)
—*P. parasitica*: chlamydospore germination, O_2 and CO_2 tension, 400; on hibiscus, new leaf disease, 1005, (1005); on sand pine, in Florida, 196; on sweet orange, metalaxyl and fosetyl Al effectiveness, 741; on tobacco, metalaxyl effect on, 559; on tomato, resistance evaluation, 708; on walnut, 1039
—*P. parasitica* and *cinnamomi*, on pineapple, chemicals for, 320
—*P. syringae*, on almond, wound canker association, 568, (569, 570)
Pierce's disease
—citrus blight caused by, survey, 497
—on grapevine, plant growth regulators, 944
Pinck, L., 266
Pine
—Armillaria root rot, puzzle, 826, (826, 827, 830)
—jack, pine oak rust of, inoculation method, 208, (209)
—loblolly and pond, pitch canker of, in North Carolina, 175
—loblolly, fusiform rust, seed treatment for, 147; resistance screening, 491
—lodgepole-, mistletoe in Intermountain Region, 429
—pinewood nematode on, resistance, 440
—ponderosa: *Ceratocystis wageneri* on, soil moisture effect, 206; Diplodia tip blight of, in South Dakota, 136; dwarf mistletoe, survey procedure, 572
—red, shoot blight and collar rot of, in nurseries, 739, (740)

—sand, pathogenic fungi on, in Florida, 196, (199)
—Scots, *Endocronartium harknessii* on, 177
—Scots and Japanese black, *Leptographium* and turpentine beetle relation, stain, 528
—southern, pitch canker disease of, 270, (270, 271)
—tip blight, water deficit effect, 798
Pineapple, heart rot, chemical control, 320
Pinkerton, J. N., 361
Plant disease common names (see Common names for plant diseases)
Plant pathogens, pure cultures of, letter, 280
Ploetz, R. C., 990
Poa pratensis (see also Turfgrass)
—Fusarium crown rot and leaf blight of, moisture effect, 294
—summer patch, induction technique, 482, (483)
Podosphaera leucotricha, on apple, ergosterol inhibitor, 562
Pohronezny, K., 170
Poinsettia, blight, etiology and control, 511, (512)
Pokorny, F. A., 83
Polymyxa graminis
—soilborne wheat mosaic virus vector, 857
—on wheat, first report in India, 542
Populus spp., disease susceptibility in north central USA, 755
Porter, D. M., 143
Portulaca oleracea, *Dichotomophthora portulacae* on, growth, 761
Postharvest pathology
—apple fruit decay, atmosphere and calcium effect, 747
—biocontrol potential, 375, (375, 378)
—Botrytis blossom-end rot of pears, 340, (341)
—calcium treatment for apple decay, 42
—citrus, fruit waxing and rot development, 869
—fruit decay fungi, heat and sodium ortho phenylphenate treatment, 574
—pome fruit storage, imazalil for control, 416, (417, 418)
Potato
—bacterial soft rot of, lenticel infiltration, 69
—early blight of, fungicide application through irrigation system, 152
—late blight, fall potatoes, Florida, 1101
—latent viruses in, detection and distribution, 851
—potato ring rot of, copper for control, 422
—soft rot of, air-dried tuber effect, 128
—Verticillium wilt, strains and compatibility group, 980
Potato spindle tuber viroid, on tomato, light and temperature effect, 49, (50)
Potato virus Y
—tobacco resistant to, aphid inoculation, 396
—on tobacco, strains and cross-protection, in Chile, 930
Potato viruses S, X, and Y, detection with Dot-ELISA, 202
Powell, C. C., Jr., 906
Pratylenchus spp., on strawberry, in Prince Edward Island, 105
—*P. agilis*, on corn, soybean, and tomato cropping systems, 927, (929)
—*P. penetrans*, survival, temperature effect, 526
Price, T. V., 177
Proffer, T. J., 360
Protea, Phytophthora root rot of, in South Africa, 211
Provvidenti, R., 542, 726
Prune, rust, races of, 485
Prusky, D., 416
Pseudocercosporella herpotrichoides
—benzimidazole tolerance in, in Washington, 360
—spore production, 862
—on wheat, cultural practice, 948
Pseudomonas spp.: on bean seed, dome test assay, 680; Fusarium wilt of carnation, control by, 1071; wheat take-all suppressed by, 710
—*P. cichorii*, on chrysanthemum, factors, 782
—*P. marginalis*, on broccoli, in Australia, 177
—*P. syringae*: strains of, host range, 589; on sweet cherry, moisture effect, 409; on tomato, epiphytic survival on transplants, 58; on tomato, incidence, 32; *Pseudoperonospora humuli*, on hops, epidemic and overseasoning, 140
Psophocarpus tetragonolobus, clover yellow vein virus on, symptoms and transmission, 352, (353)
Puccinia spp.
—*P. arachidis*, on peanut, threat in tropics, 813, (814, 815, 818)
—*P. canaliculata*, on nutsedge, biocontrol agent, 924, (924, 925)
—*P. coronata*, on wild and cultivated oats, host cytoplasm association, 969
—*P. graminis*: races, in USA and Mexico, 955; on wheat, new virulence for *Sr24* in South Africa, 1007
—*P. graminis tritici*, on wheat, stem rust resistance gene, from Triumph 64, 217
—*P. melanocephala*, on sugarcane, introduction to America, 689
—*P. nakanishikii*, on lemongrass, in Hawaii, 1100
—*P. polysora*: on corn, dew period and temperature effect, 219; uredospores, germinability and infectivity, factors, 937
—*P. recondita*: *Aegilops* resistant to, 314; occurrence and virulence in Minnesota, 404; on wheat, in North Dakota, 720; on wheat, specific virulence in USA from 1978 through 1983, 343
—*P. sorghi*, on sweet corn, resistance, 845
—*P. stylosanthis*, on *Stylosanthes*, in Brazil, 355, (355)
—*P. thaliae*, on canna, in Hawaii, 1101
Punja, Z. K., 469
Purdy, L. H., 689
Pusey, P. L., 375
Pyrenophora teres, on barley, triadimenol seed treatment for, 77, (77)
Pyricularia oryzae, on rice, vinyl film for control, 596
Pythium spp.: on black walnut seedlings, control, 398; soil isolation, selective medium, 393; on wheat, metalaxyl sensitivity, 686
—*P. aphanidermatum*: on guayule, first report, 177; on turfgrass, fungicides for, 939
—*P. aristosporum* and *P. arrhenomanes* on *Agrostis* roots, 336, (337, 338)
—*P. arrhenomanes*, on sorghum, seedling epidemic, 726
—*P. ultimum*: on cotton, symptom variability, 298; on impatiens, container media, 494; on soil, ammonia effect on, 154

Qi, Z., 896
Qusus, S. J., 361

Raabe, R. D., 238, 450
Radish, Rhizoctonia damping-off, chemical and biological control, 431
Raju, B. C., 189, 782, 1005
Ramirez-Villupadua, J., 612
Ramsdell, D. C., 85
Rane, K. K., 177
Rao, A. L. N., 610, 959
Rao, V. P., 982
Rao, V. R., 951
Raspberry, fire blight of, in Wisconsin, 360
Rauld, E., 213
Raupp, W. J., 314
Ravelonandro, M., 266
Rebois, R. V., 927
Red clover necrotic mosaic virus, clover primary leaf necrosis virus strain of, 959
Reddy, D. V. R., 542, 1101
Reddy, L. J., 813
Reddy, M. V., 177
Reifschneider, F. J. B., 1069
Reis, L. G. L., 451
Resistance
—*Aegilops* spp. resistant to mildew, rust, Hessian fly, and greenbug, 314
—celery to *Fusarium oxysporum* race 2, 882
—chickpea to Phytophthora root rot, 504
—chrysanthemum: to Fusarium wilt, 836; to Fusarium wilt, chemical control effect, 564
—corn to bacterial wilt and northern corn leaf blight, 845
—cotton to Fusarium wilt, interspecific hybrids, 312
—peanut to leaf spot, 951, 1059
—pearl millet to ergot, stability, 982
—pepper to tobacco mosaic virus, 899
—pine to rust, screening, 491
—*Populus* spp. and hybrids to disease, in north central USA, 755
—potatoes to Verticillium wilt, stability, 980
—red clover to bean yellow mosaic virus, 694
—soybean to reniform nematode, 587
—tomato to Phytophthora root rot, 708
—walnut to Phytophthora root rot, 1039
Rest, E. B., 1100
Rettke, M. L., 504
Rhabdocline pseudotsugae, on Douglas-fir, needlecast, 714
Rhizoctonia solani
—anastomosis groups of, virulence on beans and cowpea, 25
—anastomosis groups and pathogenicity, in Brazil, 599
—on cabbage, in New York, 158, (159)
—on carrot, fungicides for, 477
—on *Cynodon*, in Florida, first report, 811
—on impatiens, container media, 494
—inoculum quantified, 966
—*Laetisaria arvalis* suppression of, 347
—on radish, chemical and biological control, 431
—on sainfoin, first report, 905
—on sugar beet, rotation crops, residue effect, 871
—on tobacco, leaf spot, 901, (902)
Rhodehamel, N. H., 589
Rhodes, A. M., 246
Rhoeo discolor, tobacco mosaic virus of, 356, (357)
Rhopalosiphum maidis, corn virus vector, 1078
Rhynchosporium oryzae, on rice, suppression by benomyl, 884
Ribeiro, W. R. C., 599
Rice
—bacterial blight of, adult-plant resistance, 896
—*Rhynchosporium* on leaves and seeds, suppression by benomyl, 884
—seedling blast of, vinyl film for control, 596
Rice grassy stunt virus, tungrolike symptoms, in Philippines, 538, (538, 539)
Rich, J. R., 972
Richard, C., 905
Ricker, M. D., 1059
Riffle, J. W., 116

Riley, J. A., 977
Roberts, P. A., 112
Robertson, L. L., 969
Robinia pseudoacacia, *Phellinus robineae* on, in Oklahoma, 116
Rodríguez G., S., 808
Roelfs, A. P., 343, 955
Rohde, R. G., 613
Rohrbach, K. G., 320
Romaine, C. P., 694
Romano, M. L., 608
Romero-Muñoz, F., 727
Rose
—Botryodiplodia blight, in India, 726
—Botrytis rot of, postharvest control with CO_2, 789
Ross, J. P., 101
Rossman, A. Y., 187
Rotylenchulus reniformis, on soybean, resistance to, 587
Royer, M. H., 317
Ruppel, E. G., 871, 1065
Rush, C. M., 534
Russo, V. M., 1101
Ryan, M. G., 842
Ryegrass
—*Acremonium* endophytes on, significance, 179
—endophytic fungi on, serology, 200
Ryley, M. J., 504
Rytter, J., 317

Safflower, *Alternaria* spp. on, hot-water seed treatment, 350
Sagen, J. E., 283
Sams, C. E., 42, 747
Sanders, P. L., 939
Santo, G. S., 361
Santos, R., 1101
Sasaki, T., 530
Sasser, M., 361
Schaad, N. W., 680
Schafer, J. F., 343
Schaper, U., 193
Scharen, A. L., 126
Schenck, S., 320
Schieber, E., 1100
Schiffmann-Nadel, M., 869
Schisler, L. C., 1080
Schizaphis graminum, *Aegilops* resistant to, 314
Schizophyllum commune, on apple, decline, 887
Schmidt, B. A., 200
Schmidtling, R. C., 491
Schmitt, D. P., 40
Schmitthenner, A. F., 362, 514
Schoulties, C. L., 361
Schroth, M. N., 1071
Schütt, P., 548
Schwartz, H. F., 878
Schwarz, M. R., 225
Sclerophthora macrospora, on St. Augustinegrass, growth and development effect, 289, (289, 291)
Sclerospora graminicola, on pearl millet, seedling inoculation technique, 582
Sclerotinia spp., on lettuce, epidemiology and control, 766
—*S. borealis*, on winter cereals and lawn grasses in Alaska, 722, (722)
—*S. homoeocarpa*, on turfgrass, fungicides for, 939
—*S. minor*: fungicides for, tolerant isolates, 143; sclerotial populations, green manure and lettuce effect, 579; transmission and spread on infected seed and debris, 379
—*S. sclerotiorum*: on apple, in Washington, 726; sclerotia, mycoparasites, test for, 584
Sclerotium rolfsii
—on carrot, cultural practices and fungicides, 477
—chlorpyrifos and hydrolysis products of, 254
—on sainfoin, first report, 905
—sclerotial sampling and distribution in soil, 469
Scott, G. E., 893
Scott, H. A., 891
Seed treatment, barley leaf stripe, 474
Semer, C. R., IV, 1005
Septofusidium sp., on guava, in South Africa, 726
Septoria spp.: on *Chromolaena odorata*, 1101; on wheat, fungicide and cultivar effect, 162
—*S. avenae*, on wheat, leaf spot syndrome, 724, (724, 725)
—*S. glycines*, pathogenic variability in isolates, field evaluation, 744
—*S. helianthi*, on sunflower, host reaction, 986
—*S. nodorum*, on wheat, seed treatment for, 74
—*S. tritici*, on wild oat, in Chile, 126, (127)
Sharma, H. C., 314
Shaw, C. G., III, 13, 826
Sheppard, W. D., 1100
Sheridan, J., 77
Sherwood, J. L., 727, 848
Shetty, H. S., 982
Shew, H. D., 559, 901
Shiel, P. J., 791
Shokes, F. M., 990
Shortt, B. J., 520
Siegel, M. R., 179, 200
Silverborg, S. B., 243
Sim, S. T., 694
Simons, M. D., 969
Sinclair, J. B., 436, 506, 520, 584
Singh, G., 982
Singh, S. D., 582
Skaria, M., 854
Skinner, G., 56
Slack, S. A., 49
Smalley, E. B., 60
Smeltzer, D. L. K., 83
Smiley, E. T., 360
Smiley, R. W., 44, 294, 482
Smith, D. R., 1101
Smith, L. J., 451
Smith, R. S., Jr., 773
Smith, R. W., 703
Smith, V. L., 469
Soil fumigants, ethylene dibromide-chloropicrin and methyl bromide-chloropicrin, for tobacco stunt control, 445
Soilborne pathogens, field microplots for study, rotary digger, 81, (82)
Soilborne wheat mosaic virus
—on durum wheat, host reaction, 64
—wheat streak mosaic virus relation, growth factor, 857
Sommer, N. F., 340
Sonoda, R. M., 613, 811
Sorghum
—maize dwarf mosaic virus, feature, 1011, (1012, 1013)
—*Pythium arrhenomanes* epidemic, in Texas, 726
—sugarcane mosaic virus on: differential inbred lines, 1046; seed production effect, 310
Sousa Costa, N. M. de, 355
Soybean
—bacterial tan spot, field spread, 1036
—bean pod mottle virus of, in North Carolina, 101
—bud proliferation, etiology, 811
—*Cercospora* and *Phomopsis* on, seed quality and yield effect, 436
—*Colletotrichum gloeosporioides* on, new in Spain, 1007
—disease loss estimate in southern USA in 1983, 92
—foliar fungicides for, point system for scheduling, 962
—*Phytophthora megasperma* on, races, temperature effect, 524
—Phytophthora root rot of: biocontrol, 1033; problems and progress, 362, (363, 366, 367)
—*Pratylenchus agilis* on, cropping system, 927
—reniform nematode on, resistance, 587
—root-knot nematode of, yield response, 334
—roots, internal fungi, cropping history, cultivar, and sampling date, 520
—seed, *Bacillus* and fungus interaction, 506
—seedborne fungi, benomyl effect on germination and yield, 763
—*Septoria glycines* on, pathogenic variability, 744
—stem canker: emerging problem, 641, (643, 646); first report in Maryland, 811; isolate variation, 132; southeastern USA, 990; in Texas, 361
—tobacco streak virus on, in Oklahoma, 727
Sphacelotheca reiliana
—chemical seed and soil treatment, 301
—on corn, seedling chlorotic spot in evaluation, 251, (252)
Sphaeropsis sapinea
—conidial morphology in isolates, 838, (839, 840)
—on pine, water deficit effect, 798
—on red pine, in tree nurseries, 739, (740)
Sphaerotheca fuliginea, on melon, in Brazil, 1069, (1069)
Spiegel, S., 448
Spilker, D. A., 331
Spinach, cucumber mosaic virus on, characterization, 751
Splittstoesser, W. E., 933, 1100
Spotts, R. A., 388, 391, 574
Squash, stem canker and wilt of, 613
Squash mosaic virus, on *Chenopodium*, seed transmission, 946
Srivastava, R. C., 726
Stack, R. W., 915
Stall, R. E., 122, 361
Stapleton, J. J., 808
Starkey, D. A., 268
Statler, G. D., 720
Stavely, J. R., 770
Stebbins, T. C., 494
Stemphylium botryosum, on greenhouse vegetables, film for control, 530
Stenocarpella macrospora, on corn, in North Carolina, 613
Stenotaphrum secundatum, downy mildew of, growth effect, 289, (289, 291)
Stephens, C. T., 494, 501
Stewart, W. K., 208
Stienstra, W. C., 301
Stipes, R. J., 292
Stokes, I. E., 310
Strawberry
—anthracnose of, fungal variation, 164
—black rot of, fungicides for, 608
—fruit, *Phytophthora cactorum* on, survival, 514, (515)
—*Meloidogyne* spp. on, hosts and parasitism, 40, (40)
—nematodes of, in Prince Edward Island, 105
—tobacco streak virus on, occurrence in Israel, 448, (449)
Strider, D. L., 564, 836

Strigula spp., host range, 1100
Stromberg, E. L., 301
Stuckey, R. E., 763, 962
Stylosanthes spp., rust of, in Brazil, 355, (355)
—*S. guianensis*, charcoal rot of, first report in Colombia, 83
Subba Rao, P. V., 951
Subrahmanyam, P., 813, 951
Sugar beet
—cyst nematode on, distribution in California, 1075
—powdery mildew of, sterol-inhibiting fungicides for control, 257
—*Rhizoctonia* biocontrol with *Laetisaria*, 347
—Rhizoctonia root rot of, rotation crop and pathogen survival, 871
Sugarcane, rust of, introduction to Florida, 689
Sugarcane mosaic virus, on sorghum: differential inbred lines, 1046; seed production effect, 310
Sumner, D. R., 25, 239, 382
Sun, S. K., 917
Sunflower
—Alternaria blight and Septoria leaf spot of, host reaction, 986
—*Alternaria helianthi* on, seed treatment for, 124
—diseases in Hawaii, 542
—nematodes of, reproduction on, 103
Sutton, T. B., 700
Swanson, T. A., 779
Synchytrium desmodii, on *Desmodium*, wart disease in Colombia, 806, (807)
Szkolnik, M., 562

Taber, R. A., 903
Tal, Y., 312
Taphrina caerulescens, on oak, first report in Georgia, 83
Taschenberg, E. F., 406
Tattar, T. A., 528
Taylor, P. A., 1002
Teakle, D. S., 1046
TeBeest, D. O., 6
TeKrony, D. M., 763, 962
Templeton, G. E., 6
Thakur, R. P., 982
Thielaviopsis basicola
—on chickpea and lentils, first report, 1089, (1090)
—in soil, ammonia effect on, 154
—on tobacco, soil fumigants for, 445
Thomas, M. D., 884
Thomason, I. J., 112, 1075
Thomison, P. R., 811
Thompson, D. C., 294, 833
Thompson, S. M., 356
Thrapp, P. J., 177
Thunbergia alata, foliar ringspot disease of, virus cause, 726
Tietz, H., 283
Tilletia indica, on wheat, inoculation, 317
Timian, R. G., 706
Timmer, L. W., 497, 741, 1055
Timmerman, E. L., 933
Tobacco
—*Meloidogyne* spp. on, management with nematicides, 67
—*Phytophthora parasitica* on, metalaxyl effect, 559
—potato virus Y on, in Chile, cross-protection, 930
—resistance to potato virus Y, aphid inoculation, 396
—Rhizoctonia leaf spot, North Carolina, 901, (902)
—root-knot of, nature, in Florida, 972
—stunt disease of, soil fumigants for, 445
Tobacco mosaic virus
—on ash, transmission, 542
—on pepper, defoliation strain, resistance, 899
—on *Rhoeo discolor*, symptoms, 356, (357)
—white ash decline association, 791
Tobacco ringspot virus
—on ash, transmission, 542
—white ash decline association, 791
Tobacco streak virus
—on soybean, in Oklahoma, 727
—on strawberries, in Israel, 448, (449)
Toler, R. W., 56, 289, 1011, 1046
Tomato
—crown gall of, biocontrol with *Agrobacterium*, 302
—cucumber mosaic virus, in Sudan, 1007
—Fusarium crown and root rot, in Texas, 1100
—late blight of, hosts, types, races, 516
—nematode of, control with nematicides and drip irrigation, 138
—Phytophthora root rot of, greenhouse technique for evaluation, 708
—potato spindle tuber viroid on, light and temperature effect, 49, (50)
—*Pratylenchus agilis* on, pathogenicity, 927
—*Pseudomonas* on, incidence and development, in Georgia, 32
—root-knot nematodes of, species screening for resistance, 112
—transplants of, epiphytic survival of bacterial speck, 58
Tomato ringspot virus, weed hosts of, previously unreported, 360
Tomato spotted wilt virus, on begonia, in Texas, 613
Tomes, L., 962
Torreya taxifolia, Fusarium needle spot, 905
Tranzschelia discolor, physiological specialization, 485
Trapero-Casas, A., 591
Trees, decline of, causes and symptoms, 548, (551-554, 556)
Trichoderma spp., on soybean roots, factors, 520
Tsai, J. H., 1078
Tsuchizaki, T., 538
Tu, J. C., 268
Tucker, D. H., 811
Turf
—melting out of, conidial dispersal, 21
—summer patch of, arsenate herbicide stress, 44
Turfgrass (see also *Poa pratensis*), disease and fungicide resistance, 939
Turnip mosaic virus
—on crucifers, in Taiwan, 28
—on horseradish, in germ plasm collection, 246
Tuttle, M. A., 360
Tylenchulus semipenetrans, on citrus, nematicides for, 974

Uchida, J. Y., 511
Ulmus pumila, *Ceratocystis ulmi* on, in Minnesota, 361
Umekawa, M., 530
Uncinula necator
—on grape: in Australia, 727; benomyl and triadimefon for, 406
—on grapevine, hyphae in buds, 149, (149, 150)
Uredo elettariae, on cardamon, first report in America, 1100
Uromyces spp., on birdsfoot trefoil, first report in USA, 727
—*U. appendiculatus*, on bean, biocontrol, *Bacillus subtilis*, 770

Vaccinium spp., red leaf disease of, in Hawaii, 805
Vallega, V., 64
van Bruggen, A. H. C., 966
Van Gundy, S. D., 138, 779
Vann, S. R., 903
Van Vuuren, H. J. J., 302
van Vuuren, S. P., 727
Vartanian, V. G., 516
Vegetables, greenhouse, disease control with vinyl film, 530
Venette, J. R., 542
Venturia pirina, on pear, ascospore release factors, 213
Verticicladiella procera, on sand pine, in Florida, 196
Verticillium spp.
—*V. albo-atrum*: on alfalfa, in Minnesota, 268; on alfalfa, symptomless carrier, 510; on cotton, dense plant population effect, 283, (284, 286)
—*V. dahliae*: on cotton, integrated control, 1025, (1025-1027); on potato, strains and compatibility group, 980
Vial, F., 409
Viricide, ribavirin, for apple chlorotic leafspot virus, 134
Viruses, pepper, incidence in Georgia, 999
Volin, R. B., 170
Von Broembsen, S. L., 211, 715

Wadsworth, D. F., 379
Waines, J. G., 314
Waks, J., 869
Waldsterben, forest tree decline, symptoms, causes, 548
Walker, H. L., 977
Walker, M. E., 52
Walkinshaw, C. H., 491
Wallace, H. N., 268
Walnut (see *Juglans* spp.)
Walter, B., 266
Walters, H. J., 811
Wang, C.-G., 838
Wargo, P. M., 826
Watermelon
—Fusarium wilt, new race in USA, 1007
—zucchini yellow mosaic virus on, in California, 785, (787)
Watkins, J. E., 911
Weaver, D. B., 641
Webb, R. E., 851
Webb, R. R., 305
Webster, R. K., 474
Weeds, biocontrol, mycoherbicide, 6, (7)
Weingartner, D. P., 1101
Weinhold, A. R., 1023
Weintall, C., 312
Weller, D. M., 710
Wells, H. D., 924
Wheat
—Cephalosporium stripe, lime and sulfur effect, 576
—durum, soilborne wheat mosaic virus on, host reaction, 64
—foot rot of, cultural practice, 948
—fungal leaf spot syndrome, in New York, 724, (724, 725)
—Karnal bunt of, from Mexico and India, inoculation, 317
—leaf rust of: in North Dakota, 720; USA, 1978-1983, specific virulence, 343
—powdery mildew, virulence genes, 905
—*Pythium* on, metalaxyl sensitivity, 686
—*Septoria* spp. of, fungicide and cultivar effect, 162
—Septoria nodorum blotch of, seed treatment, 74
—stem rust resistance gene in, 217
—take-all of, bacteria suppressive to,

screening test, 710
Wheat soilborne mosaic virus, symptomatology and virus concentration, resistance, 848
Wheat spindle streak mosaic virus, on wheat, in Georgia, 1094
Wheat streak mosaic virus, soilborne wheat mosaic virus relation, growth factor, 857
Whitam, H. K., 360
Whitney, N. G., 361
Wicks, T. J., 727
Wiese, M. V., 948, 1089
Wilcoxson, R. D., 162
Wilhelm, S., 283
Wilhite, H. S., 974
Wilks, D. S., 206
Williams, J. C., 147
Williams, P. H., 612
Williams, R. J., 982
Wilson, A. D., 751
Wilson, C. L., 375
Wilton, A. C., 83
Wimalajeewa, D. L. S., 177
Windels, C. E., 301
Witcher, W., 18
Wongkaew, 1101
Wood, B. W., 800, 997
Woodard, K. E., 905
Worf, G. L., 360

Xanthomonas spp., on bean seed, dome test assay, 680
—*X. campestris*: on *Anthurium*, in California, 727; B strain of, medium for cultivation, 122; on carrot, detection, 758; on citrus, new outbreak in Florida, 361; on cocoyam, in Florida, 170, (171); ELISA for identification, 1082; on guar, in Arizona, 811; on pepper, hypersensitive resistance, 233, (233); on pepper, Mexico strains, copper and zinc effect, 993; on rice, adult-plant resistance, 896; on zinnia, first report in Louisiana, 360
Xanthosoma caracus, bacterial leaf spot of, in Florida, 170, (171)

Yañez, P., 213
Yoshimura, M. A., 511
Yount, D. J., 487
Yuen, G. Y., 1071

Zagory, D., 122
Zaske, S. K., 487
Zazzerini, A., 350
Zeiders, K. E., 727
Zentmyer, 1100
Zhang, B.-X., 686, 710
Zinnia, bacterial leaf and flower spot, first report in Louisiana, 360
Zucchini yellow mosaic virus, on melon and watermelon, in California, 785, (787)
Zygophiala jamaicensis, on apple, fungicides, 700